GENERAL HEADS
FOR THE
Natural History
OF A
COUNTRY,
Great or Small;
Drawn out for the Use of
TRAVELLERS
AND
NAVIGATORS.

Impacted by the late Honourable
ROBERT BOYLE, Esq;
Fellow of the *Royal Society*.

Ordered to be published at his Lifetime, at the Request of Some Curious Persons.

To which is added, other Directions for Navigators, &c. with particular Observations of the most noted Countries in the World: By another Hand.

L. A. [illegible], Printed for *John Taylor* at the Hand in *S. Paul's Churchyard*, and *L. Hartford*, at the *Hand* in the *Post Hall*, 1690.

J. I. Lucas

TO THE READER.

I doubt not but it will be sufficient to recommend to you the ensuing Treatise, to know that the first and most general part of it was designed for the Press, by the Honourable Mr. BOYLE, some Months before his Death, in compliance with the frequent Importunities of many curious Gentlemen, Physicians, &c. that came ill with him, who were very desirous to have Directions how they might improve themselves by their Travels to the best Advantage. Since that Time Additions to it have been made, partly out of Mr. Boyle's own, and partly out of other Men's Writings, brought together, to be, as it were, under one View, for the further Satisfaction of the Ingenious; though in doing of this the Compiler has left

lesse himself a Liberty to insert such things as he thought might be either for the Delight or Profit of the Curious Traveller, for whom the whole of this Treatise is designed. You have here, in the First place the General Directions, divided into such as relate to the whole Microcosme, pag. 1. II. To Navigation, pag. 12. III. To Mines, pag. 18. IV. Vegetables, pag. 48.

As for particular Directions, we have begun first with Turky, pag. 58. after that Egypt, pag. 67. III. Guiny, pag. IV. Poland, pag. 75. V. Hungaria and Transilvania, p. 80. VI. Suratte, p. 87. VII. Persia, 101. VIII. Virginia, pag. 102. IX. Guiana and Brasil, pag. 106. X. The Antilles and Caribbe Islands, 109. In the End you have an Index, for the most Material Words and Things in the Treatise.

If this Treatise meet with a favorable Acceptance, we purpose to give you Useful and Pleasant Enlargements upon most of these Heads, with an Addition of New Ones, not here mentioned. Adieu.

General

General Heads
FOR
The Natural History
OF A
COUNTRY,

CONsidering the great Improvements, that have of late been made of Natural History (the only sure Foundation of Natural Philosophy,) by the Travels of Gentlemen, Seamen, and others; And the great Disadvantage many Ingenious Men are at in their

Travels, by reason they know not before-hand, what things they are to inform themselves of in every Country they come to, or by what Method they may make Enquiries about things to be known there, I thought it would not be unacceptable to such, to have Directions in General, relating to all, and also in Particular, relating to Particular Countries, in as little Bounds as possible, presented to their View.

As for the General Heads, I shall offer them to your Consideration in such Order, as they were some Years ago given to the Publick by the worthy and never to be forgotten Mr. *Boyle*; which are those that respect the Heavens, or concern the Air, the Water, or the Earth.

First. Under the first kind may be reckon'd the Longitude and Latitude

Latitude of the Place, and that in respect to the Changes made in the Air; the Climate, together with the Length of the longest and shortest Days, and the Parallels come here to be considered; the Retrogradation of the Sun upon Dials, within the Tropicks, and that naturally; what fixt Stars, and what not seen there, *&c.*

Secondly, About the Air is to be considered, its Temperature as to Heat, Dryness and Moisture, and the Measures of them, its Weight, Clearness, Refractive Power, its Subtilty or Grosness, its abounding with or wanting an Elurine Salt; its Variation according to the several Seasons of the Year, and the Times of the Day: How long the several kinds of Weather continue, what sort of Meteors it breeds most commonly; in what Order they are

generated, and how long they usually last: Especially what Winds 'tis lyable to; whether any of them be stated, and ordinary, &c. What Diseases are Epidemical, that are suppos'd to flow from the Air: What other Diseases the Country is subject to; wherein that had a share, *e.g.* the Plague and contagious Sicknesses. What is the usual Salubrity or Insalubrity of the Air. And with what Constitutions it agrees better or worse than others. As also the Specifick Gravity of the Air, compar'd with the other foregoing Qualities; for this Effect it will be convenient the Traveller be provided with a Travelling Baroscope, having the Divisions usual in the other Baroscopes, mark'd upon a sliding Ruler, which being once exactly mark'd for *London*, may serve for other Places

and

and for observing the Difference between the Air here and in other Places, and in most differing Climates, as in the Torrid and Frigid Zone, it has another Ruler coming out perpendicular from the lower End of the Sliding Ruler, that it may mark the heighth of the *Mercury*, in the lower Leg of the *Syphon*; so the Divisions in the upper end will tell you the Specifick Gravity of the Air at that Time. I am the shorter in describing this, because I have left with Mr. *Papin*, lodging at Mr. *Carpenters* in *Fridaystreet*, over against the *Bell Inn*, the whole Method of this Contrivance: Whether it will not be more serviceable both at home and abroad than that with stagnant *Mercury*, I leave to the Judgment of the Ingenious,

Thirdly. About the Water are to be considered, 1. The Sea,

its Depth, ſpecifick Gravity, Difference of Saltneſs in different Zones, the Plants, Inſects and Fiſhes to be found in it, Tides, with reſpect to the adjacent Lands, Currents, Whirl-pools, &c. 2. Rivers, their Bigneſs, their Courſe, their Inundations, their Saltiſh Taſte, as they report obſervable in *Jordan*, Subterraneous Paſſages, fruitfulneſs of their Waters, &c. Their Lakes, as that of *Sabenitzer* in *Carniola*, Ponds, Springs, and eſpecially Mineral Waters, what ſorts of Earth they run through, their Kinds, Qualities and Vertues, and how examin'd; the Sorts of Fiſhes, their Bigneſs and Goodneſs, compared with the Ground at the Bottom, their Plenty, their Seaſons, their ways of Breeding, their Haunts, and the ways of Taking of them, eſpecially thoſe that are not purely Mechanical.

Fourthly

Fourthly. In the Earth may be observed,

I. It self.

II. Its Inhabitants, and its Productions, and those internal or external.

I. As to it self: What are its Dimensions, Situation, East, West, South or North, its Figure, its Plains, Hills or Valleys, their Extent, the highth of the Hills, either in respect of the neighbouring Valleys, or the Level of the Sea; as also whether the Mountains lye scatter'd or in Ridges, and whether those run North or South, East or West, *&c.* What Promontories, Fiery or Smoaking Hills, *&c.* the Country has or hath not; whether subject to Earthquakes or not. Whether the Country is coherent, or much broken into Islands. What De-

elination the Magnet has in several Places at the same Time, and how much it varies in different Times at the same Place: Whether before the *Tornados* or *Hurricanes*, the Magnetical Needle loses its Direction towards the North, and turns to all the Points of the Compass; and if this Declination is influenced by Subterraneous Fire, destroying it within, or by Water overflowing the Surface of it, or by its vicinity to Iron Mines. What kinds of Soyls are there, whether of Clay, Sand, Gravel, *&c.* What are its Products as to Minerals, Vegetables or Animals: And moreover how all these are or may be further improved for the Benefit of Man; what are the Qualities of that Soyl, peculiar to it, *e.g.* that of *Ireland's*, contrariety to poysonous Beast.

II. The

II. The Inhabitants themselves are to be consider'd, both Natives and Strangers, that have been long settled there; particularly their Stature, Shape, Features, Strength, Ingenuity, Dyet, Inclination, that seem not due to Education. As to their Women, their Fruitfulness or Barrenness, their ease or hard Labour, with their Exercises and Dyet; the Diseases both Men and Women are subject to, peculiar to themselves, compared with their Dyet, *Air*, *&c.* that do influence them.

The Products External are Plants, Trees, Fruits, *&c.* with the Peculiarities observable in them (*e.g.* that of the Poyson-wood, call'd *Machenil* in *New-England*, with its Cures) and what Soyls they thrive best in. What Animals, Terrestrial or Volatile, or Insects of all sorts,

they produce, and to what Use applyed by the Inhabitants, as to Meat, Physick, Surgery, or Dying, &c.

By the Internal Production of the Earth are to be understood here, things procreated in the Bowels of the Earth, either for the Benefit or Hurt of Man; where Notice is to be taken, what way the one may be best found out, and the other most easily avoided or cured. Under these are comprehended Metals, Minerals, Stones Precious or Common, and how these Beds lye in reference to North or South, &c. What Clays and Earths it affords, e.g. Tobacco-pipe-Clay, Maries, Boles, with their Physical or other Uses, Fullers Earth, Earth for Potters Ware, Soap, Earths, Axungiæ, &c. What Coals, Salts, or Salt-Mines, as Allom, Vitriols, Sulphurs, &c. it yields. As for Mines,

Mines, you are to consider their Number, Situations, Depths, Signs, Waters, Damps, Quantities of Ore, goodness of Ore, extraneous things, and ways of reducing their Ores into Metals, &c. Where, by the way, you may inform your selves of the Truth of what is reported by *Agricola*, *Kircher*, &c. of Apparitions, and their Operations under Ground.

To these General Articles of Enquiries (saith their Proposer) should be added Enquiries about Traditions, concerning all particular things relating to that Country, as either peculiar to it, or at least uncommon elsewhere.

II. Enquiries that require Learning or Skill in the Answerer, to which should be subjoyn'd, Proposals of ways to enable Men to

to give Answers to these more difficult Enquiries.

After the General Heads now propos'd, we shall mention those that concern Navigators into Remote Places.

The first agrees with what has been said before, *viz.* the observing the Declination of the Compass, in the different Longitudes and Latitudes the Ship comes to, and setting down the Method by which the Observation was made.

2. To take notice of the Diping Needles, and their Observations in the like manner.

3. To observe the Odors, Colours, Tastes in Sea-water, and what are the Particularities of that Sea Water, where Ships do soonest rot, as in the Streights of *California* the Sea looks red, with innumerable Worms that are in it.

4. To

4. To remark, if (as is reported by *Kircher*) there be near the South Pole a constant Current, setting from the South, so forcibly, that Ships with a stiff Gale are hardly carried up against it; and near the North a Current forcibly carrying Ships towards the Pole, or if this Motion reciprocate once in half a Year.

5. To observe what subterraneous Passages there are, whereby Seas communicate with one another, as the *Caspian* is supposed to do with the *Black Sea*; and the *Dead Sea* with the *Red Sea*.

6. To examine the Map made of the Straits by Captain *Holland*, and the Account of the Tides he there gives.

7. The effect the Winds have upon the Seas, and how far down from the Surface they agitate the Waters.

8. To

8. To take notice of the Tid
of the Ebbings and Flowing
with the Age of the Moon wh
the Neap and Spring Tides
happen, to what heighth it do
Ebb and Flow at theſe Times u
on the Coaſt of the *Terra Firm*
or upon the Iſlands far off in t
Sea, as at *S. Helena*; and if
flow there with difference fro
the Tides near the main Lan
and how much ſooner it begins
one Side than another.

9. To take notice of the Coa
and to make narrowly the way
coming into particular Creek
and Harbours, with their Bea
ings and Diſtances from the neig
bouring Places, as you co
in.

10. Not forgetting at t
ſame Time to ſound all a long
you come in, and to mark t
Depths and Shallows near t
Shoar, or further off from t

Coa

Coast, near Shelves or Banks, and whether it increases or decreases in any Order.

11. To mark in the Sounding all Grounds, whether Clayie, Sandy or Ousie, &c.

12. To take Notice of the Winds, their Changes, or set Times of Blowing, and in what Longitude and Latitude, especially the Trade-Winds; upon what Coast the Trade Winds are most frequent, and by what Signs they may be Foreseen.

13. To Observe and Record all extraordinary Meteors, Lightnings, Thunders, and their Effects, *Ignes Fatui*, Comets, &c. marking the Places of their Appearing and Disappearing.

14. To be provided with a Nice pair of Scales, and exact Weights, for examining the Weights of the several Waters, that occur, which I think may be

be most exactly done after the Method proposed by the Incomparable Mr. *Boyle*, in his *Medicina Hydrostatica*, *viz.* weighing a Vial close stopt with a Glass-Stopper first in the *Air*, then in Liquor: If the Vial be about two Ounces in the *Air* it will do the better; for the whole Method, because 'tis too long to insert into the Tract, I refer you to the Book itself. This I propose as the most Subtile and Accurate. If you like a plainer way, you may use the Method practised by the Noble Author elsewhere, *viz.* To fill a Glass Vial of four Ounces or more, with a small Neck, full of the Water to be try'd, and to examine the Weight of it, which you may compare with another.

15. 'Twill be convenient both for the Navigator and Philosopher, to be provided with an Instrument for fetching up Water

ter from the Bottom of the Sea; first publish'd by the Ingenious Mr. *Hooke*, and transferr'd hither for the Benefit of the Curious Traveller; for by this he may know whether the Water at the Bottom be Heavier; and Salter than at the Top; or whether there be fresh Water at the Bottom, occasion'd by Springs of Fresh Water there, as some presume there are, having observ'd in some Places Springs of fresh Water, a great way within the Sea-marks: The Contrivance is this, a Wooden Bucket is fastened to an Iron rod, with a Weight to sink it; this Bucket is shut at Top and Bottom with two Valves or Clacks, so contriv'd, that when in descends, it may open and let the Water pass through; but when 'tis pull'd up again from the Bottom, it may shut so close as to keep in all the Water it has

at

at that Time, by the under Valve, and the ambient Water over it, from getting in by the upper Valve. If any be desirous to have one of these, they may have them at Mr. *Papins* in *Fryday-street*, at Mr. *Carpenter's*, over against the *Bell-Inn*.

Having gone through the General Directions both for Sea and Land, we come to more Particular ones, and shall begin first with those that concern Mines; the Knowledge of which, tho it began very early, and has been continu'd to our Times, yet is still found improveable by Human Industry, as Experience has taught us, and therefore worthy to be consider'd in the next Place, especially seeing the Arts and Inventions most useful for Man's Life, depend more upon this than any other; and that without it the

the World ſhould want little of Returning to its former Barbarity. All ſhall be reduced to ſix General Heads, as has been done by the worthy Patron of Ingenious Arts, the Honourable *Robert Boyle*, now in Glory.

The Firſt. The neighbouring Country about the Mines.
The Second. The Soyl where the Mines are.
The Third. The Sign of Mines.
The Fourth. The Structure, and other Particulars relating to the Mines themſelves.
The Fifth. The Nature and Circumſtances of the Ore.
The Sixth. The Reduction of the Ore into Metal.

QUERIES about the Firſt Title.

I. Whether the Country be Mountainous,

Mountainous, Plain, or distinguish'd with Valleys? And in case it be Mountainous, what kind of Hills they are, whether High or *Low*, or indifferently elevated; whether almost equal, or very unequal in heighth? whether Fruitful or *Barren*, Cold or Temperate; Rocky or not; Hollow or Solid? whether they *run* in Ridges, or seem confusedly plac'd; and if the former, what Way the Ridges *run*, *North* or *South*, &c. And whether they *run* any thing parallel to one another?

II. What the Country produces, and what is most plenty?

III. What Cattle it produces? whether they have any thing peculiar in point of Bigness Colour, Longevity, Fitness or Unfitness to make good Meat, and other Things, which may rather be attributed to the peculiar Nature

Nature of the Place, than the Barrenneſs of the Soyl, or other manifeſt Cauſes?

IV. What Health the Inhabitants enjoy? what Diſeaſes they are ſubject to, and to what not? for 'tis ſaid, that ſuch as dwell near Quickſilver Mines are ſeldom troubl'd with the Plague: And laſtly, what Remedies are found for the Epidemick Diſeaſes of the Place?

V. What plenty of Rivers, Brooks, Lakes, Springs, &c. in theſe, and how theſe are in Colour, Taſte, &c. and how they affect the Health of thoſe that uſe them? N. B. Mr. Boyle ſays ſomewhere, that a reddiſh Mineral Water has been drunk to ſatisfie Thirſt, without any Hurt.

VI. How the Air is diſpoſed, as to Heat or Cold, Calms or Winds, and whether theſe Winds do proceed from, or are infected with

with Subterraneous Steams; whether Clear or Foggy.

About the Second Title.

VII. Whether the Soyl that is near the Surface of the Earth be ſtony? and if ſo, what ſort of Stones it abounds with, whether it be Claye, Marlie or Chalky? and of how many kinds this is, and by what Properties they are diſtinguiſh'd?

About the Third Title.

VIII. By what Signs they conjecture a Mine to be in a Place?

IX. And ſeeing theſe Signs are either above or beneath the Surface of the Earth, *Quær.* Whether the Ground be barren where theſe Metal Mines are?

X. What Trees or Plants do moſt plentifully grow in theſe Places,

Places, and do thrive well or ill in these Places? whether they be more dwarfish, more discolour'd in the Leaves, or have any Preternatural Colour in them?

XI. What Alteration is produc'd in the Waters that run from them, either as to their Colour, Taste, Smell, Ponderousness, or the Matter that they leave upon the Stones they run over.

XII. Whether Snow or Ice continue as long in these Places as they do in the Neighbouring Places?

XIII. Whether the Dew that falls on the Ground will discolour a white Linnen Cloth, spread on the Surface of the Earth; and whether the Rain brought thither from other Places will discolour such Cloths, or afford any Residence of a Mineral Nature?

XIV. Whether Thunder, Lightnings and Storms do abound there,

there, and if there be any Fiery Meteors and Nocturnal Lights observed there?

XV. Whether Mists do arise from such Mineral Grounds; what is observable in them; what Minerals they signifie, and may be suppos'd to be produc'd by?

XVI. Whether the *Virgula Divinatoria* be us'd for the finding out the Mines, and with what Success?

As for those Signs that are beneath the Surface.

XVII. *Quæ.* Whether there be any Clays, Marles, or other Mineral Earths, and of what Consistence they are that give Notice of the Ores, and if they be more than one, and at what Depth they lye, in respect of one another; and how thick they are?

XVIII. What Stones, Marcasites, &c. there are to be found near or not far from the Surface, which

which give Signs of those Mines, as it happens in the Tin-Mines of *Cornwal*, where *Marcasites* are often found above the Ore; what is the particular Shapes, Bigness, Colour and Weight of such Stones, whereby they are distinguishable from others.

XIX. Whether Heat or Damps are a Sign of a Mine.

XX. Whether Water found in Digging be a Sign of a Mine.

XXI. By what Signs the Nearness of a Mine is known, and whether by any Sign one may know whether he is above, beneath, or at the Side of the Mine.

XXII. By what Signs the determinate Kinds of Metals are known, with their Plenty or Goodness.

XXIII. What Signs there are of the Depth of the Mines; what Signs there are of the Mines be-

ing hopeless, or at least unlikely, to find a Vein in the Place where 'tis digged for; and what these are.

About the Fourth Title.

XXIV. What is the Depth of the Shaft or Groove, till you come at the Vein or Ore. Whether the Vein run or lye horizontal or dip; and if it dip, what Inclination it hath, how deep the lowest part lies, and consequently how much deeper than the uppermost.

XXV. As also what its flexures, if it have any, are; and whether it runs directly North or South, East or West, or seem rather to have a casual Tendency than any Determination by Nature, and how far it reaches in all.

XXVI. What

XXVI. What is the wideneſs of the Groove at the Top and elſwhere; whether the Groove be perpendicular or crooked, and if crooked, after what manner, and with what Diſtance it winds.

XXVII. How the Groove is ſupported; what are the Kinds, Length, Bigneſs and way of placing the Timber, Poles, *&c.* that are employ'd to ſupport it; and how long the Wood laſts, without being ſpoyl'd by the Subterraneous Fumes and Waters, and what Wood laſts longeſt.

XXVIII. What Air-ſhaft belongs to the Mine; whether it be ſingle or more than one; of what Breadth the Air-ſhaft is at the Orifice; whether it be convenient enough or not; how near 'tis plac'd to the Groove, and in what Poſition; if there be ſeveral Air-ſhafts, what their Diſtances and Situation are, in

reference to the Grove, and to each other; and how Air is supply'd, if there be no Air-shafts.

XXIX. Whether they meet with Waters, and what plenty there is of them; at what Depth they are found, and how qualified, and what way they spring, *&c.*

XXX. Whether they are constant or Temporary; whether they increase or diminish notably in *Summer*, or at any Time of the Year; and what that Season is, how long it lasts, and the Proportions of Increase and Decrease.

XXXI. What Engines or Contrivances are made use of for drawing up the Water, and conveying it away, the Materials they are made of, the Parts, the Bigness, the coaptation, and in short the whole Structure, number and way of applying the Instruments, that are made use of to free the Mines from the Water.

XXXII. what

XXXII. What are the Conditions, Number, &c. of the Adits.

XXXIII. Whether the Mines be troubled with Damps, and of what kind they are, whether they come often or seldom at any Time of the Year, or altogether irregularly.

XXXIV. What Signs forerun them; what Mischief they do; what Remedies are the most successfully employed against them, as well in reference to the clearing of the Mine, as to the Preservation and Recovery of the Men.

XXXV. What Methods the Mine-men use in following of the Vein, and tracing their Passages under Ground (which they call Plumming and Dyalling) according to the several exegencies; and whether they employ the Instruments made with the Help of the Loadstone, the same way that is usual; and, if not, wherein they

differ in the Use of the same Instruments; and what Instruments they substitute in their place.

XXXVI. What ways they secure themselves against the uncertainty that the Magnetical Needle is subject to, when it comes near to Iron Ore (of which yet perhaps there is not so great Danger as one may imagine, as far as I could find by a Tryal purposely made in a Groove, where I was sure there wanted not Iron Ore;) and what other ways may be used, besides a Load stone, to help a Miner.

XXXVII. How the Miners deal with the Rock and Spar they meet with before they come at the Ore; and how they use Fire to soften, calcine or crack them; with what Success they employ it.

XXXVIII. By

XXXVIII. By what means they free the Mines and the workmen, from the Inconveniences arising from the much use of the Fire.

XXXIX. With what Instruments they break the Rock, how they are used, and how long they last.

XL. How the Miners work, whether cloathed or naked, and what Lights they use to work by; what Materials they are Made of, and what Light they give; how long they last, and by what ways they are kept burning in that thick and foggy Air.

XLI. How Veins are followed, lost and recover'd; and how several Miners work on the same Vein, and what is the best way of getting all the Ore in a Vein, and most conveniently.

XLII. How they convey out their Ore, and other Things that

are to be carried out of the Mine; whether they do it in Baskets, drawn up by Ropes, or upon Mens Backs; and if this last kind of way, what kind of Vessels they use for Matter, Shape and Capacity, and whether the Workmen deliver them one to another; or the same Workmen carry them all the Way; and whether the Diggers descend and ascend by Ladders of Wood or Ropes, &c.

About the Fifth Title.

XLIII. Whether the Ore runs in a Vein, or lye dispers'd in Scatter'd Pieces, or be divided partly into a Vein, partly into loose Masses, or like a Wall between two Rocks, as it were in a Cleft, or be interspers'd in the firm Rock, like speckled Marble, or be found in Grains like Sand or Gravel, as store

ſtore of excellent Tin is ſaid to be found in ſome Parts of *Cornwal*, at the Sides and in the Channels of Running Waters, which they call———or whether the Ore be in a ſofter Conſiſtence, like Earth or Lome, as there is Lead-Ore in *Ireland*, holding ſtore of Silver & Iron-Ore in the North Parts of *Scotland* and elſwhere, and what is obſerveable in it, as to Weight, Colour, Mixture, *&c.*

XLIV. Whether any part of the Metal be found in the Mine perfect and compleat (as I have had preſented me good valuable Copper, and Pieces of perfect Lead, that were taken up, the one at *Jamaica*, and the other by an Acquaintance of mine, that took them out of the Ground himſelf in *New-England.*)

XLV. Whether the Mine affords any parcels of Metal, that ſeem to grow like Plants (as I

have sometimes seen Silver grow, as it seemed, out of Stone or Spar, almost like Blades of Grass, as also great Grains of Metal, which appear'd to me, and which those that try'd some of it, affirm'd to be Gold, abounding in a stony Lump, that seem'd chiefly to consist of a peculiar kind of Spar.)

XLVI. Whether the Vein lye near the Surface of the Earth, and at what Depth; whether the Vein have not any peculiar concomitant Coats (if I may so call them) and if any, what they are, and in what Order they lye, as the Veins of Lead-Ore, with us, have frequently annexed to them a Substance called Spar, and next to that another, call'd Chalk.

Whether (besides these coats) they have belonging to it any other Heterogeneous Substance

(a

(as in Tin mines we often find that yellow Substance they call Mundick).

XLVII. What are the principal Qualities of these extraneous Substances (as that Spar is white, but almost transparent, like course Crystal, heavy, brittle, easily divisible into Flakes, *&c.* Caulk is of a different Texture, white, opacous, and like a Stone, but much more ponderous: Mundick I have had of a fine golden Colour, but tho it be affirm'd to hold no Metal, yet I found it in weight and otherwise to differ from Marcasites, and the Mine-men think it of a poisonous Nature.)

XLVIII. Whether the Vein be inclos'd every way in its Coats, or whether it lye only between them.

XLIX. Whether the Vein be every way of an uniform Breadth and Thickness; and if it be what

these

these Dimensions are; and if not, in what Places it varies, and in what measures (the like Questions are to be made concerning the Spar, Caulk, and other Mixtures of the Ore).

L. Whether the Vein be uninterrupted, or in some Places broken off; and whether it be abruptly or not; and whether it be by Vales, Brooks or Gullets, &c.

LI. How wide the Interruptions are; by what Signs the Veins are to be found again; whether the ulterior part or division of the Vein be of the same Nature and hold on in the same Course, as to its tendency upwards and downwards, or horizontally, Northward or Southward, &c. with the Vein from which 'tis cut off.

LII. Whether in case the last end of the Vein be found, it terminate

minate abrupely, or elſe end in ſome kind of Rock or Earth, which does as it were cloſe or ſeal it up, without leaving any Crack or Cranny, or otherwiſe. and whether the terminating part of the Vein tends either upward or downwards, or neither. Or whether in the Places where the Vein is interrupted, there be any peculiar Stone or Earth, that does, as it were, ſeal up the Extremity of it.

LIII. Whether it be obſerv'd that the Ore in Tract of Time may afford any Gold or Silver, which it doth not afford, or more than it would afford if it were not ſo ripe; and whether or not it have been found that the metalline part of the Vein grows ſo, that ſome part of the Ore will afford Ore or Metal in Tract of Time, that did not ſo before; and whether to this Maturation of the

Mine,

Mine, the being expos'd to the free Air be necessary; or whether at least it conduce to the acceleration of it, or otherwise.

LIV. Whether all the Ore contain'd in the Mine be of the self same Nature and Goodness, and if not, what are the differing kinds, and how to be discriminated and estimated.

LV. What is the Fineness and Goodness, by which the Mine is wont to be estimated. And,

LVI. What are the Marks and Characters that distinguish one sort from another.

LVII. What Proportion of Metal it affords; (as in our Iron-mines is observ'd, that about three Tons of Iron-stone will afford one Ton of Metal: And I have had Lead-Ore, which an ingenious Man, to whom I recommended such Tryals, affirmed to me, to afford three parts in four of good Lead.)

LVIII.

LVIII. Whether the Ore be pure in its kind from other Metals, and, if not, of what Metals it participates, and in what Proportion, which is especially to be enquir'd into, especially if the Mine be of a base Metal, that holds a Noble Metal (as I have known it observ'd, That Lead-Ore, that is poor in its own Metal affords more Silver than other; and I remember that the Ore lately mention'd, being Rich in Lead, scarce afforded us, being cupell'd) an Atome of Silver. And *Matheſius* informs us, That a little Gold is not unfrequently found in Iron-Ore: And I have by me some fine Gold, that never endur'd the Fire, taken out of Tin-Ore.

About the Sixth Title.

LIX. What Preparations are us'd before the melting of the Ore, as Beating, Grinding, Washing, Tossing or Parting, as is most frequently us'd in Copper-Ore, and sometime in Iron-Ore; if they use this Burning more than once how often they do it (for Copper-Ore is in some Places wash'd eight or ten times, and in other twelve or fourteen) and with what Circumstances, as how long the Ignition lasts at a Time; whether the Ore be suffer'd to cool of itself, or be quenched; whether it be wash'd betwixt each Ignition; or whether the Ore requires no such Preparations, as it often happens in Lead-Ore and sometimes in Iron.

LX. Whether *Mercury* is made use of in separating the Nobler from

from the Baſer Metals (as in *Peru*, &c.)

LXI. Whether (as I have ſeen done in Iron-ſtone) the Ore be expos'd to the Air, as a Preparative.

LXII. What Flux-powders they uſe for reducing their Ores in ſmall Quantities.

LXIII. Whether in reducing or melting great Quantities they uſe any Addition of Flux-powder (or *Fondant*, as the *French* term it,) or only by the Force of the Fire, or in any way between both (as throwing in of Charcoals when they melt Iron-ſtone does not only ſerve to feed the Fire, but by the *Alcali* of the Aſhes to promote the Fuſion: So Lime-ſtone, &c.) What is the Contrivance of the Furnaces, and if they be all of one ſort or bigneſs, or differing; what Tools are uſed in Smelting, and how contriv'd.

LXIV. What

LXIV. What Fewel they uſe, and how much is ſpent in a Day or Week, and what Returns they have in Metal, in a proportionate Time.

LXV. Whether the Ore be melted in a Wind Furnace, made by the Fire's own Motion, or by Bellows; what their Dimenſions are, and what way us'd.

LXVI. What way they take or let out the Metal that is in fuſion, to caſt it into Bars, Sows, Pigs; and what Clay, Sand or Mould they let it run, or pour it through; and after what manner they refrigerate it.

LXVII. Whether or not, to facilitate the Fuſion, they mix ſeveral Ores of the ſame ſort together (as in ſome Places 'tis uſual to mix rich and poor Ore, and at *Mendip* they mix two or more of theſe differing kinds of Lead-Ores, that they call Firm Ore,

Ore, Steel-Ore, Pottern-Ore, &c.)

LXVIII. Whether or not, after 'tis once melted, they melt it again, to make it more pure; and if so, with what Circumstances they perform it.

LXIX. Whether they have Signs to know when the Fusion is well or ill perform'd, and the Metal have obtain'd a Perfection requisite in such a Fusion, and in such a Furnace.

LXX. Whether they observe any difference in the Goodness of the Metal that comes first, from that which comes last; and whether the Rule holds constantly (for though they observe in the Tin-mines, That the best Metal comes first, yet an Industrious Friend of mine informs me, that the best Metal comes last.)

LXXI. Whether the produc'd Metal be all of the same Goodness; and if it be, how good it

is

is in reference to the Metals of other Mines, or other Parts of the same Vein; and if it be not, what difference are between the produced Portions of Metal, and what disparity that amounts to in the Price.

LXXII. What are the ways of distinguishing them, and estimating their Goodness.

LXXIII. Whether there be not elevated Flowers to the upper Parts of the Chimney, and whether they are barely excrementitious, or Metalline (as in the *Cornish* Tin mines, after some Years they pull down the thatched Houses, in which the Ore has been melted, to get the Stuff that adheres to the insides of the Roof, out of which they melt store of excellent Tin).

LXXIV. Whether when the Ores are brought to Fusion, they have any Recrements (as Iron-

stone

ſtone affords ſtore of a dark Glaſs or Slag, the like does Tin, and if it do, what theſe Recrements are, and how to be ſeparated from the baſer Metal.

LXXV. Whether after the Metal has been melted, the remaining part of the Ore will in Tract of Time be impregnated with more Metal (for this is affirm'd to me of the *Cornish* Tin-Ore; and what remain'd after the Fuſion of the Iron-Ore in the Foreſt of *Dean*, is ſo rich in Metal, that a Tenant of mine in *Ireland*, though he had on the Land he held from me an Iron-Mine, found it leſs profit to work it, than to ſend to the Foreſt of *Dean* for this already us'd Ore, which having layn for ſome Ages ſince it was thrown aſide, in great Heaps, expoſed to the Air, he affirm'd to yield a very great ſtore of Iron and very

very good; though I somewhat doubt

LXXVI. Whether this be totally to be ascribed to the *Air*, and length of Time, or to the leaving of Metal in the Slags in old Times, before great Furnaces were in use.)

LXXVII. Whether the *Air* appears really to be cold in *Summer* and hot in *Winter*, by more evident Truths than the Testimony of our Touch.

LXXVIII. Whether they find the Stones and Ground actually hot, so that sometimes they can hardly stand upon the Place, as *Glauber* says, and from whence that proceeds.

LXXIX. Whether there be Mineral Juices that harden into Stones or Metals, upon the touch of the *Air*, called *Gas*; of this *Helmont* relates an Observation.

LXXX. What

LXXX. What Laws, Constitutions and OEconomy is obſerv'd among the Miners.

LXXXI. What way the Trees and their Leaves are affected by the Mineral Fumes and Juices, and if they be gilded or ſilver'd as along the River *Meine* in *Germany* is obſerv'd; and if theſe Trees be more ponderous than others; if they have any Metals or Metaline Concretes lodg'd in their Pores.

LXXXII. Whether there be Waters and Springs obſerv'd to riſe near the Mines, and run their whole Courſe under the Ground, without ever appearing above it.

LXXXIII. Whether Subterraneous Springs do riſe with any VVind, or determinate Change of Weather.

LXXXIV. How much heavier the Atmoſphere is at the Bottom than at the Top; and whether Damps

damps considerably increase the weight of it.

LXXXV. Whether they find any strange Substances in the Mines as Vessels, Anchors, Fishes inclos'd in Spar or Metal.

Having gone through what belongs to the Mineral Kingdom, in as full a Method as we could; the next Head of Enquiries shall be about the Vegetable Kingdom, which though more proper for one that has his abode fixt, may yet be acceptable and useful also to the curious Traveller.

I. What Vegetables there are which having the wrong End of them set down into the Ground, will yet grow, as 'tis said Elders and Bryars will.

II. Whether the Branch of a Plant (as of a Vine or Bramble) being laid into the Ground, while

yet growing on the Tree, and there taking Root, being cut off from the Tree whilſt ſo growing, will ſhoot out forward and backward.

III. In Tapping, Cutting or Boring of any Tree, whether the Juice that vents at it comes from above or below.

IV. What part of the Juice aſcends or deſcends by the Bark; whether what ſo aſcends, aſcends by the outward or inward part of it.

V. Whether if a Zone of about two or three Inches be cut off about the Bottom of a Branch, that Branch will die or caſt its Leaves, or bleed out a Juice from the upper or lower part of the Bark ſo cut, or be apt to ſhoot out Leaves or Branches, or Knobs, either above or below that Boring.

VI. What the uſe of the Pith is; whether the Juice aſcends or deſcend by it; and what effects will follow if the Trunk be bor'd to the Pith, and a Peg driven hard into the Hole of the Pith, both above and below; this to be tryed in the moſt pithy Plants.

VII. Whether the Points or Ends of the Roots being cut off, the Roots will bleed as copiouſly as Branches of the Trunks do when bor'd.

VIII. What Side of the Tree affords moſt Sap.

IX. Of what Age Trees afford moſt Sap.

X. What are the beſt Seaſons of the Air for taking the Sap of every kind of Tree in greateſt Quantity, and how long that Seaſon laſteth.

XI. Whether the Sap comes more copiouſly at one Time of

the Day or Night than at another.

XII. Whether Trees afford any considerable Juice in the Fall.

XIII. What Effect, Copiousness, or Scarcity of Rain hath upon the Saps of Trees.

XIV. Whether or no the Nature of a Tree may be changed by Applications of Juices or Liquors to the Roots, or other Parts.

XV. Whether a Tree, whose Root is covered from Rain, and not watered, if the Branches of it be exposed to the Air, will grow.

XVI. Whether inoculated Roots of a Tree will grow.

XVII. How short the Arms of the Roots of a Tree may be cut, and the Tree still grow.

XVIII. How deep the several kinds of Trees are to be set in the Ground to grow.

XIX. Wether, or no, a Seed being planted either way, it will grow equally.

XX. Wether the Stem of a Tree being set in the Earth, and the Root turn'd up into the Air, the Tree will grow, &c.

Enquiries concerning the Use and Culture of the Kitchen-Garden and Winter-Greens.

1. What

Roots		to	Eat Raw
first Shoots			Boyle
Sprouts			Roste
Stalks			Bake
Buds			Picle
Flowers			Preserve
Fruits			Candy
Kernels			Dry whole
Seeds			dry to powder, serving for Spice
			make Wine
			—Cyder,
			—Perry

—Ale and other various Drinks
—Vinegar and Verjuice
—Thick Juices like Honey
—Concrete Juices like Sugar
—Bread
—Cakes, Puddings and bak'd Meats
—Broaths
give pleasant Colours to Meats and Drinks
what Herbs are fit to make Sallets, and how to be order'd for that purpose.

II. The best Season to sow every Sort of Seed.

III. How often every sort of Seed ought to be sown for the Use of the Kitchen-Garden.

IV. How the Earth is compounded and ordered for several

kinds of Seeds and Plants.

V. What to be sow'd on Cold Grounds.

VI. What to be sow'd on Hot Beds.

VII. Several ways of making Hot Beds, and their Attendance.

VIII. How and what to be transplanted either into Cold Ground, or into New Hot Beds, and how order'd after.

IX. What Observations on the Sun, Moon and Weather, for Sowing, Planting and Transplanting.

X. How to Water and Shade Plants new planted, and Seeds sowed.

XI. What thrives best in the Sun.

XII. What thrives best in the Shade.

XIII. What and how such as will not prosper in the Green-House,

Houſe, may be covered and preſerved abroad.

XIV. The ſeveral Names of Worms, Vermine and Inſects that are noxious to the Gardens.

XV. The Remedies.

XVI. The beſt Form and Dimenſion of the Green Houſe; as alſo of what to build and cover it.

XVII. What to be houſed in Winter.

XVIII. How to order the Pots or Tubs before they are uſed.

XIX. When and in what Weather to open and cloſe the Green-Houſe.

XX. What Obſervations at the firſt ſetting abroad of the Winter-Greens in the Spring.

XXI. How to Prune and Dung the Winter-Greens.

XXII. What may be increaſed by the Root.

XXIII. What by Layers.

XXIV. What by Slips or Cuttings.

XXV. What grows beſt of Seeds that Shed and Sow themſelves.

XXVI. What to be Grafted and Inoculated.

XXVII. The ſeveral ways of Ingrafting and Inoculating.

XXVIII. How to alter the Shape, Smell, Taſte and Colour of Vegetables, by joyning different Roots together.

XXIX. How and what may be changed by Grafting, Joyning or Inoculating Shoots or Buds on different Stocks or Cyons.

XXX. How to compound ſeveral Liquors to Water, and feed Vegetables, whereby they may be much altered.

XXXI. Of what Roots, Stalks, Barks, Leaves, Flowers, Fruits, Seeds or Downs, may be made either

either Cups, Boxes, Baskets, Mats, Callicoes, Cloaths, (as Nettle Cloath) and the like, all which will be moſt uſeful for the Life of Man, from the Garden.

XXXII. How to prune Vines, how many Joynts to leave, and of what Age the Vine muſt be, that is cut away.

XXXIII. How to prune Standard-Trees.

XXXIV. How to prune Wall-Trees, and with what to be beſt faſtned.

XXXV. The Places from whence the beſt of the Vegetables that are either Winter-Greens, or fit for the Kitchen-Garden, may be had, and the Marks of their Goodneſs.

XXXVI. How to diſcern good Seeds from bad.

XXXVII. The Times of Gathering, and the Ways of Preſerving them.

Though we have by Journal-Books a fuller Account given us of *Turky* than of many other Countries, yet becauſe there are in theſe but imperfect Relations of many Things, which yet are needful to be known, it will not be amiſs to make known here the account of theſe Things, that the Curious Traveller may inform himſelf of them, as he ſhall find conveniency for it.

1. In what Part of *Turky* the *Roſma* is to be found, and in what Quantities; whether the Turks employ it to any other Uſes beſides that of taking off the Hair: whether there be differing kinds of it; how it is uſed to take of Hair, and how to get ſtore of it.

2. Whe-

2. Whether the *Turks* do not only take *Opium* themſelves for Strength and Courage, but alſo give it to their Horſes, Camels and Dromedaries, for the ſame purpoſe, when they find them tired and faint in their Travelling; what is the greateſt Doſe any Men are known to have taken of Opium, and how prepared.

3. What Effects are obſerved from their Uſe of *Opium*, as alſo of Coffee, Bathing, Shaving their Heads, uſing Rice, and why they prefer that which grows not unleſs watered, before Wheat, *&c.*

4. How their *Damaſco* Steel is made; and,

5. What is their way of Dreſſing Leather, which though thin and ſupple, will hold out Water.

6. What

6. What is the way they breed those excellent Horses, they are so much famed for.

7. Wether they be so skilful in poysoning as is said, and how their Poisons are curable.

8. How the *Armenians* keep Meat Fresh and Sweet so long, as it is said they do.

9. What Arts or Trades they have worth Learning.

10. Whether there be such a Tree about *Damascus* called *Mousiac*, which every Year, about the Month of *December*, is cut down close by the Root, and within four or five Months shoots up again space, bringing forth Leaves, Flowers and Fruit also, and bearing but one Apple, an excellent Fruit, at once.

11. Whether at *Reame*, in the South Parts of *Arabia Felix*, there be Grapes without any Grains; and

and whether the People of that Country live, many of them, to an hundred and twenty Years in good Health.

12. Whether in *Candia* there be no poysonous Creatures; and whether those Serpents that are there are without Poyson.

13. Whether all Fruits, Herbs, Earths and Fountains are naturally saltish, in the Island of *Cyprus*; and whether those Parts of this Isle, which abound naturally in Cyprus-Trees, are more or less healthful than others.

14. What store of *Amianthus* there is in *Cyprus*, and how they work it.

15. Whether Mummies be found in the Sands of *Arabia*, that are the dryed Flesh of Men, buried in those Sandy Desarts in Travelling; and how they differ in their Vertue from the embalmed ones.

16. Whe-

16. Whether the Parts about the City of *Constantinople* or *Asia Minor*, be as subject to Earthquakes now as they have been formerly; and whether the Eastern Winds do not plague the said City with Mists, and cause that incoastancy of Weather, it is said to be subject to.

17. Whether the Earthquakes in *Zant* and *Cephalenia*, be so frequent, as to happen, now and then, nine or Ten Times in a Month; and whether these Isles be not very Cavernous.

18. What is the heighth of Mount *Caucasus*, its Position, and Temper in several Parts, *&c.*

19. With what declivity the Water runs out of the *Euxine Sea* into the *Propontis*; with what Depth; and if the main Tides and Eddies, so famous by the Name of *Euripi*, have any certain Period.

20. If

20. If in the *Euxine Sea* there can be found any Sign of the *Caſpian* Sea's emptying itſelf into it by a Paſſage under Ground; if there be any different Colour or Temper as to Heat or Cold, or any great Emotion in the Water, that may give Light to it.

21. By what Inland Paſſages they go to *China*; there being now a Paſſage for Caravans throughout thoſe Places, that would formerly admit of no Correſpondence, by reaſon of the Barbariſm of the Inhabitants.

22. Whether in the Aqueducts they make, they line the Inſide with as good Plaiſter as the Ancients did, and how theirs is made.

23. To enquire after the excellent Works of Antiquity, with which that Country is full, and which by the Ignorant

rant are not thought worth Notice or Preservation; and particularly what is the Structure and Bigness of the Aqueducts, made in several Places about *Constantinople* by *Solyman* the Magnificent.

24. To enquire whether the Relations of a whole City's being turned into Stone be true, and if not what gave the first Rise to it, and whether it lye so near the Sea that these Bodies so metamophosed may be easily brought into *Europe*. Here I beg the Reader's Leave to digress a little, and give him the Information I had of it from one who was upon the Place, did see this strange Metamorphosis, and had an account of it from one who lived near to it, which I the rather adventure to do, because I have had good Proofs of his Veracity in other Relati-

Relations, and also because I had the same confirm'd to me in great measure, by a Gentleman, who had been long a Chaplain to the Factory at *Smyrna*, who assured me, That there's no Doubt of it. 'Tis this: Being obliged to go with the Army sent by the Bassa of *Tripoly* to reduce a City that had rebelled against him, in the way, he and some others, after Leave got from their Commander, did turn aside to see this so strange Metamorphosis; at his first coming into the Place he saw a Sheep lying upon her Belly, as if it were chewing the Cud, whose Head he broke off from her Neck, with a Stone, and in the Gullet he could perceive some remainder of the chew'd Grass all petrified, which he took up, and sold afterwards to one of his Fellow-Slaves, who

who, having ſent it to the Pope, had his Ranſome returned for it: A little further they ſaw a Woman ſitting on her Knees, with her Hands in a Trough, as if ſhe were kneading Dough, her Mantle, that was claſp'd about her Neck being caſt backward, and all turned to Stone, ſo hard that they could lift her and the Trough, in which the Hands were, without parting them or breaking any thing. When he asked a Prieſt, that was ſent from the City to treat with the Commander, What way this did happen, he anſwer'd him, That all the Inhabitants of that Place were Sodomites, and that God rained down Fire and Brimſtone from Heaven upon them; upon her which they were all turned to Stones: And for Proof of this, he deſired him to dig in the Sand,

Sand, with his Hand, a Foot deep, which he found like blue Ashes; which, said the Priests, were the remainders of that Fire.

But to return to our Subject, the next Enquiries shall be for *Egypt*. And,

1. Whether it rain at any Time, and if so at what Time of the Year; and what Influences that Rain hath upon the Air, as to the making it Wholesome or Pestilential, or otherwise unwholesome.

2. To consider the Nitre that is made there, to try what affinity there is between the Nitre we have and theirs, whether it discover an Alcaly Nature by its colluctation with Acids, as some report, and whether after dissolving

ing in Water, Filtration and Evaporation, it give Chryſtals like to Nitre.

3. Whether the Earth of *Egypt*, adjoyning to the River *Nilus*, preſerved and weigh'd, daily keeps the ſame Weight, till the ſeventeenth of *June*, and then grows daily heavier, with the Increaſe of the River.

4. Whether if the Plague be never ſo great before, yet on the firſt Day of the *Nile*'s Increaſe, it not only not increaſeth, but abſolutely ceaſeth, not one dying of it after; and whether this be juſtly attributed to the ſwelling of the *Nile*, or the cool Winds that happen about that Time, and come from the diſſolving of the Snows on the *Riphean* Hills, behind *Greece*, which being impregnated with the Nitrous Particles of of the Snow, doth both fan the Air

Air of *Egypt*, and communicate to it an Antipeſtilential Quality; which I the rather am inclin'd to believe, becauſe Judicious Men do attribute in part the ſwelling of the *Nile* to theſe *Eteſia*, that blowing hard on the Mouth of the *Nile* force its Waters back again into it's Channel, which meeting with the Land-flood, that is at the ſame Time occaſion'd by the great Rains happening at that Time on the Mountains of the *Moon*, do make the River overflow its Banks.

5. To enquire particularly into the manner of hatching Eggs in *Egypt*; how the Camels Dung is prepar'd, wherein they are laid; how often the Eggs are turned; how covered; whether they hatch in one and twenty Days, as they do with us under a Hen; whether the Chick-

ens

ens be as perfect as ours; if imperfect, whether that may not happen to them with rough handling, while they are removed, being very tender, out of the Place where they are hatched; to take the Design of the manner, how by the Pipes the Heat is conveyed to several Rooms; how they treat them betwixt the Time of their Hatching and Taking away by the Owners; whether they do not also use to hatch Eggs under Hens.

6. To enquire if the Yellow-Amber that is sold in *Egypt* in great Quantity, be the Gum of a Tree growing in *Egypt*, or *Ethiopia*, as *Belloniat*, after *Diodorus Siculat* affirms; and whether, besides several Animals, that are found inclosed in that Amber, there is frequently found some Part of the

the Bark of a Tree ſticking to it.

7. To enquire of a certain Tree, growing not far from *Cairo*, which bears a Fruit ſtuffed with Wool, that is finer than Silk, of which the Arabs make Linnen, that is ſofter than Silk, and whiter then Cotton.

8. Whether Crocodiles that are found to be ſometime thirty Foot long, are hatched of an Egg no bigger than a Turkey's.

9. Whether the Ichneumon, or Egyptian-Water-Rat, can kill a Crocodile, by skipping into his Mouth, and gnawing his Way out, as Old Writers affirm.

10. Whether it be true, That the *Arabs* can charm the Crocodiles, or whether there be on the *Nile*'s Side any *Taliſmans*, or Conſtellated Figures, beyond which the Crocodiles cannot paſs, as ſome would make us belive.

11. To

11. To enquire at *Cairo* for several Drugs, which are common there, and much in use, yet not brought into *Europe*, as *Acacia*, *Calamus Odoratus*, *Amomum*, *Costus*, *Ben Album*, and divers such others.

12. Whether the Female Palm-Tree be not Fruitful unless she be planted by the Male, as some would bear us in Hand.

13. To enquire whether the Appearance of Legs and Arms of Men, related to stand out of the Ground, to a great Number, at five Miles from *Cairo*, on *Good Friday*, do still continue, and how that Imposture is perform'd.

14. Whether Children born in the eigth Month do usually live there, contrary to what is believed to happen elsewhere.

15. To take an account of the Wooden Locks there, which are said to be made with as great

great Art, there, as our Locks here.

16. To obſerve the Courſe of the Waters both in the *Mediterranean* and the *Red Sea*.

Enquiries for Guiny.

1. Whether the River *Niger* overflows the Country yearly, like *Nilus*.

2. Whether the Rain, when it falls, be often very hot, roting the Cloaths, if not preſently dryed, and breeding Worms in them.

3. Whether the Gold there be of very different Fineneſs, and that which is uppermoſt in the Mine be the fineſt.

4. Whether the Palm affords them Wine, Oyl, Vinegar, Soap, and Bread; and whether out

of the Leaves they pick Threds, making thereof very curious Works.

5. Whether they have besides their Palm-wine, a Drink made of Grain, like our Ale; what Grain that is, and how prepared.

6. Whether some People on the River *Gambra* be only Tawny, as others very Black.

7. Whether the Negroes have such sharp Sights, that they discover a Ship further off at Sea than an *European* can.

8. What Reason there is to conclude, That the common People being accustomed to drink Water, is the cause that they are troubled with Worms in their Bodies, very painful to them, and difficult to get out.

Enquiries

Enquiries for Poland *and the adjacent Countries, especially such as are more Northerly.*

1. What is the way of making Pot-ashes in *Poland*.

2. What is to be observed about Succinum or Amber; whether it be an exudation of the Sea; whether it be soft when 'tis first cast on Shore; at what Season of the Year, and in what manner 'tis taken up, *&c.*

3. What is to be observed in the digging of *Sal Gemmæ* in *Poland*; and what is the Depth of the Mines, stored with the Salt; and what their Distance from the Sea.

4. What Truth there is in that Relation, of Swallows being found under Waters, con-

geal'd in Winter, and revivin
if they be fish'd and held to th
Fire.

5. Whether there be in th
Bodnick Bay a Whirl-pool,
is related to be in the Sea
Norway, which is commonl
called the *Maal ſtroom*; a
whether there be any Sig
that relate the Communicati
of theſe Gulphs with the Su
terraneous Paſſages, as *Kirch*
ſays in his *Mundus Subt*
T. 1. p. 146.

6. To what Depth the Co
in theſe Parts pierces the Ear
and Water.

7. Whether their Watch
go ſlower by the inte
Cold.

8. Whether their Oil,
great Colds is turned into tru
that is to ſay, hard and brit
Ice.

9. Wh

9. Whether they can freeze here a ſtrong Brine of Bay Salt, a ſtrong Solution of *Sal Gemmæ*, or Soot, or a ſtrong Solution of Salt of Tartar, or Sugar of Lead.

10. Wether they can Congeal meer Blood, all the ſerous part thereof being ſevered. Wine, *Canary* Wine, Solutions of all Salts, and ſtrong Solutions of Metals.

11. Whether an intenſe and laſting Froſt makes any Alteration in Quickſilver, expoſed very ſhallow, in a Flat Veſſel.

12. Whether the Purgative Vertue of Catharticks be increaſed or diminiſhed, or even totally deſtroyed by a ſtrong continual Cold.

13. Whether Harts-Horn thawed will give the same Quantity of Spirits, by the same Method of Distilling, which they use to yield, when not frozen.

14. What Cold operates in the Fermentations of Liquors.

15. Whether Birds and wild Beasts grow white there in Winter-Time, and recover their Native Colour in Summer.

16. Whether Colours may be concentred by Cold, *e. g.* a strong Decoction of Cochineal in a fit Glass.

17. Whether the Electrical Virtue of Amber, and the Attractive Force of the Magnet be changed by a vehement Cold.

18. Whe

18. Whether Pieces of Iron and Steel, even thick ones, be made brittle by intenſe Froſts; and therefore Smiths are obliged, for prevention, to give their Iron and Steel Tools a ſofter Temper.

19. Whether accurate Obſervations evince, That all Fiſhes dye in frozen Waters, if the Ice be not broken; where it is diligently to be enquired into, Whether the Cold itſelf or the want of Changing or Ventilating the Water, or the privation of Air, be the cauſe of the Death of Fiſhes.

20. Whether any ſkilful Anatomiſt has enquired, by Freezing to Death ſome Animals (as Rabbets, Pullets, Dogs, Cats, *&c.*) after what manner it is that intenſe Cold kills Men; whether they have

found Ice in the inward Parts, as the Brain and Heart, and in the greater Veſſels.

Enquiries into Hungary *and* Tranſilvania.

1. What is obſervable in *Hungary*, *Tranſilvania*, and the neighbouring Parts, as to Minerals, Springs, Warm Baths, Earths, Quarries, Metals, *&c.*

2. Particularly, to enquire into the ſeveral Sorts of Antimony, or Antimony Ore, to be found in *Hungary*, and to inform us of the ſeveral Places, whence they are digged, to the End they may be ſent for.

3. To enquire where the beſt Hungarian Vitriol is to be found, and the *Cinnabaris Nativa*.

4. To

4. To give us a right Account of the right Gold and Silver-Earth-Ore, said to be found at *Cranach* in *Hungary*, whence the Gold is called *Cranach Gold*, first lighted upon by the Care of the Emperour *Rudolphus*, and chymically wrought by his Order and Inspection.

5. To enquire and send over some of that kind of Vitriol, which by credible Persons is affirmed to be found Crystallized in *Transilvania*; as also after the Vitriol, said to yield Gold.

6. To inform us of the Salt-Pits in *Transilvania*, said to yield two Sorts of perfect Salt, the one being a *Sal Gemmæ*, the other a common Table-Salt; to observe how deep these Salt-Mines lye from the Surface of the Ground; how deep they

are digged hitherto, and what Damps are met with in them.

7. To enquire after the Veins of Gold and Quickſilver at *Cremnitz* in *Hungary*; and the Vein of Silver at *Schemnitz* in the ſame Kingdom.

8. To enquire whether the Waters of the *Therma* that paſs by *Schemnitz*, depoſe a certain Sediment, which in Time turns into a Yellow Stone.

9. Whether in the Mines of Gold, Silver, Copper, Iron, Lead in *Hungary*, there be generally found Quickſilver and Sulphur.

10. Whether it be true, That in the Copper-Mines of the Place called *Herren-Ground* in *Hungary*, there be found no Quickſilver at all.

11. Whe-

11. Whether it be true that in ſome Parts of the *Upper-Hungary* the Ores of Copper, Iron and Lead be ſometimes ſo commixed, that there is often found in the upper of the Concrete Matter of Iron, in the midſt Matter of Copper, and in the lowermoſt Lead; and that in other Parts of the Country, Copperiſh Fluors are mixed with leaden ones.

12. Whether it be true what *Athanaſius Kircher* writes from Relation, That the Ductus of Metals do ſometimes run North and South, and ſometimes croſs-ways.

13. Whether it is true what *Busbequius* reports, of a River in *Hungary*, whoſe Water is ſo hot, and yet ſo full of Fiſh, that he ſaith one would expect, that all the Fiſh drawn thence would come out boyl'd. 14. Whe-

14. Whether there be Springs about *Buda* or *Alba Regalis*, that riſe at the Bottom of the River, ſo hot, that thoſe who go to bath, dare not put their Feet ſo low as the Sand, for fear of having them Parboyl'd.

15. Whether there be in *Hungary* an *Avernus*, that exhaleth always ſuch poyſonous Steams, that Birds flying over it do oftentime fall down, either Stupifyed or quite Dead; what are the particulars of this as to Taſte, Smell, Colour, Heat or Cold; whether any Waters run into it, and what Minerals are found near about it, to which theſe Qualities can be moſtly attributed.

16. Whether the Iron that is ſaid to be turned to Copper, by the Vitriolate Springs at *Cremnitz* or *Smolnitz* in *Hungary*, do

do after that Tranſmutation, or Precipitation, contain a pretty deal of Gold.

17. Whether the depth of the Gold-Mines of *Hungary* be two thouſand four hundred Feet.

18. What Quantity of Gold is got out of an hundred weight of Ore, and whether it be got alone or mixed with other Metals in the Ore.

19. Whether they find Trees or any other Salt, in the ſolid Salt of their Salt-Mines.

20. Whether there be a great Lake in *Moravia*, whence the Waters at a certain Time of the Year are all drawn away, by great Holes in the middle of it, leading through ſubterraneous Paſſes, and that ſo ſuddenly, that the Fiſh are left on the Ground, which afterward becomes good Paſture for another

ther part of the Year, the Waters then returning by the ſame Paſſages they went out, and that with ſo much Force that it riſes like a Jet of Water.

21. Whether it is true, That in ſome parts of *Hungary*, near the Gold-Mines, the Leaves of their Trees have their lower Superficies, if not their upper alſo, gilded over with yellowiſh Exhalations.

22. What is the way ſaid to be uſed in *Hungary* and *Auſtria* of extracting the Perfect Metals out of their Minera's without Lead, performed by caſting a Powder upon the Minera, which makes a quick and advantagious Separation, Sulphur being ſuppoſed to be an Ingredient of it.

Enquiries

Enquiries for Suratte, *&c.*

1. Whether it be true that Diamonds and other Precious Stones, do grow again after three Years, in the ſame Places where they have been digged out.

2. Whether the Quarries of Stone near *Fettipore*, not far from *Agra*, in the *Mogul*'s Dominions, may be cleft like Logs, and ſawn like Planks to ciel Chambers and cover Houſes therewith; Likewiſe whether about *Sadrapatan*, on the Coaſt of *Cormandel*, there be a Stone of the like Nature, ſo as ſetting a Wedge upon it, one may cleave it with a Mallet, as thick or as thin as one pleaſeth; and whether it be of the Nature

Nature of our Fire-ſtone, that is prepared by the Stone-Cutters for Ovens.

3. Whether upon the ſame Coaſt of *Cormandel* about *Toutoucourin*, and that of *Ceylan* at *Manar* and *Jafanapatan*, they fiſh Pearls, as good as thoſe about *Ormus*; whether thoſe Pearls are the better the deeper they lye; what is the greateſt depth they are known to have been taken at; and whether it be true that ſome of the Natives there, can ſtay under Water half an Hour without any Art.

4. Whether the Iron in *Pegu* and *Japan* be far better than ours; and if ſo, what is to be obſerv'd in Melting, Forging and Tempering of it.

5. Whe-

5. Whether in *Sumatra* there be a Fountain running a very Sanative Oil; and whether the Ignivomous Mountain in the ſame Country do burn Continually, and caſt out Stones ſo eaten by the Fire that they Swim.

6. What is the Opinion of the more Inquiſitive Men in theſe Parts of *Ambergris*, and whether the greateſt Quantities of it are found about the Iſle *Mauritius*.

7. Whether it be Winter on the Eaſt-ſide of the Mountain *Gates*, which comes from the North Cape *Comorin*, whilſt it is Summer on the Weſt-ſide, and ſo *vice verſa*.

8. Whether it be true, That upon the Coaſt of *Coromandel*, ſixteen Degrees Northern Latitude, between *Paleacate* and *Maſulipatan*, fifty Leagues in length,

length, the Hot Winds blowing from the Landward from eight in the Morning till four in the Afternoon, with such a suffocating Heat, that the Inhabitants are not able to endure it without extraordinary Helps and Refreshment: Every one, for his Provision of Drink, daily hangs his Bottle, made of common Pot-Earth, and filled with Well water, or other potable Liquor, upon some Post, Tree or Wall, in places where the Sun and Wind are most piercing, leaving it all the Day long there, in the scorching Heat; and then taking it up about four a Clock in the Evening, the Drink is more cool than any Depth of Cellaridge can make it: And whether, on the contrary, the Bottles being suffered to continue

nue in the Air, as before, during the Cool Sea Gales, which come in after the ſaid Hour, and continue all Night, till eight in the Morning, to the Refreſhment of all Creatures, the Liquors grow hot, and unfit for Drink.

9. Whether the Tide, near *Mindana*, going from the *Molucca's* to the *Philippina's*, are ſo ſwift, that neither contrary Winds nor Anchors, can ſave a Ship from being carried away by it; and that it riſes about three or four Feet; and whether the like be obſerv'd in the Bay of *Cambaia*, and in that between *Martaban* and *Pegu*: And particularly whether in the ſaid Bays the Tides come in with that Impetuoſity and Swiftneſs about the Quarters of the Moon, that the Watch-

Men

Men from High-Towers muſt give Warning to the People, to retire, and that a Horſe, in his ſwifteſt Courſe, when ſuch a Tide comes upon it cannot out run it, as *Iſaac Voſſius* obſerves, *lib. de motu Marium & Ventorum*, c. 15. And what other Particulars are obſervable in all theſe Coaſts about the Tides.

10. Whether there be any Diſcoveries newer than the neweſt Painted Maps of the Parts of the World North-Eaſt of *Japan*; and whether *Japan* be truly an Iſland, or no.

11. What is the true way of Making and Colouring *China*-Diſhes, and how in *China* and *Japan* they make the Black Varniſh.

12. With what Materials, and how they paint on Cloath, commonly

monly called *Pintadoes*, and likewise upon Canvas, *&c.*

13. Whether *Lignum Aloes* be the Wood or Root of a Tree. In what Country it is found; and how to know the best of the kind.

14. Whether the best Tea be that which comes forth at the first of the Spring, and are the Top-Leaves; in what manner 'tis dry'd, and whether the too hasty drying thereof hurts it.

15. Whether there grows a Wood in *Java* that naturally smells like Human Excrements; and if so what kind of Ground it grows in.

16. Whether in the *Malacca Islands* there be a Red Wood, which Burns Sparkles and Flames without being consumed, yet may be reduced to Powder, by

by rubbing between ones Fingers.

17. Whether near the Fort of *Ternate* there be a Plant, called by the Inhabitants *Catopa*, whence fall little Leaves, which are turned into Butterflies.

18. Whether in *Pegu* and other Places they uſe a Poyſon, that kills by ſmelling, and yet the Poyſonous Smell is hardly perceived.

19. Whether it be true, That the only Antidote, hitherto known, againſt the Famous and Fatal *Macaſſar* Poyſon, is Human Ordure, taken inwardly; and what Subſtance that Poyſon is made of.

20. Whether there be ſuch a Vegetable in *Java*, called *Mangas Bravas*, that is ſo poyſonous, that it kills preſently, and for which no Remedy hath been yet found.

21. Whe-

21. Where the beſt *Calamba-Wood*, or *Palo d'Aquila* grows; whether the *Palo d'Aquila* be much inferior to *Calamba*, and how they are diſtinguiſh'd; whether the latter be the Pith of the former; whence the beſt Sort comes; whether it be ſtored with a Rich and Cordial Balm, and that be the Cauſe of its great Rate, being much uſed in the Decay of Spirits, and the Lameneſs and Impotency of Nerves.

22. Whether they draw an Oil, reſembling Oil of *Camphire*, from the Roots of the Cinnamon-Tree, and how they draw it.

23. Whether the Camphire of *Borneo* be not the Exudation or Gum of a Tree.

24. Whe-

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24. Whe-

24. Whether the Indians can ſo prepare that ſtupifying Herb, called *Datroa* or *Datura*, that they make it lye ſeveral Days, Months and Years, according as they deſign it, in a Man's Body, without doing him any Hurt, and at the end kill him, without miſſing an Hour's Time.

25. Whether the *Betele* hath ſuch a contrariety to the *Durion*, that a few Leaves of that, put to a whole Shopful of *Durions*, will make them all rot ſuddenly; and whether thoſe that have ſurfeited on *Durions*, and thereby over-heated themſelves, do, by laying a Leaf or two of *Betele* upon their Breaſts or Stomachs, immediately cure the Inflammations, and Recover.

26. Whether the *Papayas*, which bear Fruit like a Melon, do not bear unleſs Male and Female (as the Vulgar diſtinguiſhes them) ſtand together.

27. Whether there be two Sorts of Trees called *Arbor Triſte*, one by the Name of *Triſte di Die*, the other *Triſte di Notte*, whereof the former ſheds his Flowers at the Riſing, the other at the Setting of the Sun; and whether the diſtilled Water thereof (called *Aqua di Megli* by the *Portugals*) may not be tranſported into theſe Parts?

28. Whether one of theſe Trees called *Arbre de Rays*, propagates itſelf into a whole Foreſt, by ſhouting up and letting fall Roots from all its Branches into the Ground, that ſpring

up again, and so on; and whether there be any single ones of these Trees, that are above fifty Feet in Diameter, as some affirm.

29. What Particulars are observable in any other Plants of those Parts.

30. Whether those Shel-fishes that are in those Parts Plump and in Season at the full Moon, and Lean and out of Season at the New, are found to have contrary Constitutions in the *East Indies*.

31. Whether the Animal that yields the true Musk, be like a Dear, horules, found in the high Country between *Pegu* and *China*; and whether the Musk grows in Bags, Blisters or Swellings, which the Beast rubs off against Trees, it being affirmed to have been found in the

the Woods by the Scent; whether True Musk is discerned from the False by its Yellowness, when rubbed upon ones Hand, and by its keeping that Colour and the Scent.

32. Whether there be two Sorts of *Gum Lack*, one produced by an Insect, a certain winged Ant, the other the exsudation of a Tree.

33. To enquire after the Fish called *Cabala*, said to be very powerful in staunching of Blood.

34. Whether at *Java* there be Oysters, or other Shell-fishes, of that bigness, as to weigh 300 Pounds.

35. Whether in *Malacca* there grows sometime a Stone in the Stomach of a kind of Porcupine, called *Pedro Porco*, esteemed for its Cordial Virtue above *Bezoar*.

36. Whether there be found in the Head of a certain Snake, a Stone, which laid upon a Wound of any Venomous Creature, sticks fast to it, and draws away all the Poyson; then, being put into Milk, voids its Poyson, and turns the Milk Blue; and then applyed again, draws the rest of the Poyson that may be behind, till the Wound be perfectly cured.

37. Whether the Rhinoceros have such an Antipathy against Elephants, as is commonly reported.

38. Whether in the Island of *S. Helena*, the Tide be at the same Time round in the several Coasts of it, and what is the Hour of full Sea, and what the Age of the Moon at the Time of Observation.

Enquiries

Enquiries for Persia.

1. What are chiefly the present Studies of the *Persians*, and what kind of Learning they now excel in.

2. What other Trades and Arts they are now skilled in, besides that of making of Silk and Tapistry.

3. Whether, there being already good Descriptions in Words, of the excellent Pictures, and Basse Relieves, that are about *Persepolis* at *Chilminar*, yet none very particular, some may not be found sufficiently skill'd, in those Parts, that might be engaged to make a Draught of the Place, and the Stories there Pictured and Carved.

4. How they make that Plaister; wherewith in *India* and those Parts, they line their Tanks or Cisterns, and which, when dry, shines like Marble, and is much harder.

Enquiries for Virginia *and* Bermudas.

1. Concerning the Varieties of Earths; 'tis said, there is one kind of a Gummy Clear Consistence, White and Clear; another White, and so Light, that it swims upon Water; another Red, called *Wapergh*, like *Terra Sigillata: Quare*, What other considerable kinds are there; and to send over a Parcel of each.

2. What

2. What considerable Minerals, Stones, Bitumens, Tinctures and Drugs.

3. What Hot Baths, and of what Medicinal Use.

4. What is the Original of those large Navigable Rivers, which empty themselves into the Bay *Chesapeak*; and whether on the other Side of that Ridge of Mountains, from which they are supposed to proceed, there be not other Rivers that flow into the *South Sea*.

5. How the Silk-Grass is prepared.

6. To give a full Account of that Vulnerary Root called *Witchcan of Pocone*, a Root of a red Juice, a good Tincture: Of *Musquaspem*, a Root of a red Tincture: Of the Plant *Maricock*, whose Fruit is said to be fashioned like a Lemon,

exceeding pleasant to the Taste, of a Blossom most beautiful: Of the *Chinesmen-tree*, whose Fruit is said to have a Husk like a Chesnut, Luscious and Hearty Meat, both Raw and Boiled.

7. Whether there be in the *Bermudas* a Poison-Weed, like our Ivy, whose Leaves do by the Touch cause Blisters; and a Reed whose Juice or Infusion causeth Vomit.

8. What kinds of Trees these Barks are taken from, that are used instead of Tile or Slate, in the Covering of their Houses, being cooler in *Summer* and warmer in *Winter* than Stone.

9. To give a particular Account of the Spider in the *Bermudas*, said to be Large and Beautiful for its Colours, weaving

ing

ing a Web betwixt several Trees, which is affirmed to be for Substance and Colour like perfect raw Silk, so strong, that Birds, like Snites, are snared therein.

10. Whether Dear have generally their three or four Fawns at a Brood; and whether any of the Cattle, transported from hence, becomes there more Fruitful than they were here.

11. Whether the Relation be true, of a Glue made of Harts-Horn, that will not dissolve in Water, and if so, how made.

12. Whether at the Bottom of the Bay of *Chesapeak*, northward, the Natives be still of such a Gigantick Stature, as has been reported; and whether there be another not far from these, Easterly, of a Dwarfish Stature.

13. Whether round about the Coaſt of the *Bermudas* the Tides keep the ſame Time, and at what a Clock, preciſely, it is High-water on the Days of Full and New Moon, and how high the Water riſes then; and the like on the Coaſts of *Virginia* and *Florida*.

Enquiries for Guaiana *and* Braſil.

1. Whether about *Orabba*, near *Oronoque*, ſome eight Degrees Northern Latitude; and about the Town *Darien*, Toads are preſently produced, by throwing a kind of Moriſh Water, found there, upon the Floors of their Houſes. *Linſchotten.*

2. Whe-

2. Whether it be true that the Locuſt of *Braſil*, called, *Caayra*, changeth in the *Spring*-Time into a Plant, and withers away like a Plant; and whether, in the ſame Country, that kind of *Eruca*, which is called by the *Portugals Lagartas des Verias*, turns into a Bird, admirable for Colour and ſwift Flying, the Change thereof being made ſo leiſurely, that one may for a while ſee half of the Inſect, and the other half of the Bird, which the Natives call *Guianumbi*, the *Portugals Pegafrel. Piſo.*

3. Whether upon the Leaves of that *Braſilian*-Tree, called *Cereiba*, there is, in a Sunſhiny Day, found a white Salt in that Quantity, that one may gather as much from two or three Leaves as will ſalt

ſalt a good Pot of Broth. *Piſo.*

4. Whether there be found about the Mouth of the River of *Amazones*, a green *Argilla*, which, though very ſoft under Water, yet, when expoſed to the Air, grows almoſt as hard as a Diamond, inſomuch that the Natives make Hatchets of them, ſtrong and ſharp enough to cleave Wood; for which purpoſe alſo thoſe *Indians* are ſaid to have uſed it, before they got Iron ones; and whether this *Argilla*, become Stone, have a peculiar Vertue againſt the Epilepſie, when carried by the Patient. *Pelleprat*, in his Relation of the *Iſlands*, and *Terra Firma* of the *Southern America*.

5. Who-

5. Whether the black Bees in *Guaiana*, about the River *Orenoque*, make black Hony and Wax; and whether they have no Stings, as the ſame *Pelleprat* affirmeth.

Enquiries and Directions for the *Antiſles*, or *Caribe Iſlands*.

I. *Of Vegetables.*

1. Whether the Juice of the Tree *Jumpa*, being as clear as any Rock Water, yields a Brown Violet Dye, and being put twice upon the ſame Place, maketh it look Black; and whether this Tincture cannot be got out with any Soap, yet diſappears of itſelf in nine or ten Days; and whether certain Animals, particularly Hogs and

and Parrets, eating of this Fruit, have their Fleſh and Fat altogether ſtinged of a Violet Colour.

2. Whether Ring-Doves, that feed upon the bitter Fruit of the *Acomas*-Tree, have their Fleſh bitter alſo?

3. Whether the Wood of the *Acajou*-Tree, being red, light and well ſcented, never rots in the Water, nor breeds any Worms when cut in due Seaſon; and whether the Cheſts and Trunks made thereof keep Cloaths, placed therein from being Worm-eaten.

4. Whether the Leaves of a certain Tree, peculiarly called *Indian-Wood*, give ſuch a haut-gouſt to Meats and Sauces, as if it were a Compoſition of ſeveral Sorts of Spices.

5. Whe-

5. Whether there be two ſuch Sorts of the Wood, called *Savomer* or *Soap-Wood*, of the one of which the Fruit, of the other the Root ſerveth for Soap.

6. Whether the Bark of the *Paretuvier Wood*, tans as well as Oak Bark.

7. Whether the Root of the Tree *Laitus* being brayed, and caſt into Rivers, maketh Fiſhes drunk.

8. Whether the Root of the *Manioc* is ſo fertile, that one Acre planted therewith, yields ſo plentiful a Crop, as ſhall feed more People than ſix Acres of the beſt Wheat.

9. What Symptoms do uſually follow upon the taking of the Juice of *Manioc*, or upon eating the Juice with the Root, and what Effects are thereby produced

produced upon the Body, that infer it to be accounted rank Poyſon; whether worſe Effects than theſe may be cauſed by meer Crudity, as by Turnips or Carrets eaten Raw, and much more by Raw Fleſh, in thoſe that are not uſed thereto, or at moſt ſome ſuch nauſeous or noxious Quality, as might be corrected in the Taking or Preparation, which Correction, if effected; might perhaps render the Bread much heartier, the Juice being likely to carry off the Spirit and Strength, leaving the Remainder Spiritleſs.

10. The *Palmetto Royal* being ſaid by *Ligon* to be a very tall and ſtreight Tree, and ſo tough, that none of them have been ſeen blown down, and withal hollow, in all which

Reſpects

Reſpects they may ſerve for ſpecial Uſes, and particularly for long Optick Tubes.

11. Whether the Oyl expreſſed out of *Ricinus*, or *Palma Chriſti* be uſed by the *Indians*, to keep them from Vermine; to ſend over ſome of that Oyl.

12. Whether in the Paſſage of the Iſthmus, from *Nombre de Dios* to *Panama*, there is a whole Wood full of Senſitive Trees, of which, as ſoon as they are touch'd, the Leaves and Branches move with a ratling Noiſe, and wind themſelves together into a winding Figure.

13. VVhether there be certain Kernels of a Fruit, like a white Pear-plum, which are very Purgative and Emetick, but having the thin Film, which parts them into halves, taken out,

out, they have no such Operation at all, and are as sweet as a *Jordaine* Almond.

14. To send over some of the Roots of the Herb, called by our Author *L'herb aux Flesbes* (the Dart-Herb) which being stamped is said to have the Vertue of Curing the VVounds made with poyson'd Darts.

15. To send some of the Grain of the Herb Musk, puting it up carefully in a Box, which being in it will keep its Musk-Scent.

16. To send over a Specimen of all Medicinal Herbs, together with their respective Vertues, as they are reputed there. *Item*, Particularly the *Prickle-with* at the *Barbados*; *Mazo*, *Mastick-Tree*, *Locust*, *Black-wood*, *Tellow within*, *Five Sprig*, *Tidle-wood*, *White Wood*, *Barbados Cedar*.

17. Whe-

17. VVhether the Fruit *Mancenille* of the *Mancenillier Tree*, though admirably Fair and Fragrant, yet is fatal to the Eater, and falling into the VVater kills the Fishes that eat thereof, except Crabs, who yet are said to be dangerous to eat, when they have fed upon this Fruit; whether under the Bark of this Tree is contain'd a certain glutinous Liquor, as white as Milk, very dangerous, so that if you chance to rub it, and this Juice spurt upon the Shirt like a Burning, if upon the naked Flesh, it will cause a Swelling, if upon the Eye, Blindness for several Days; and whether the Shadow of this Tree be so noxious, that the Bodies of Men reposing, it will swell strangely; and whether the Meat itself that is boyled with

with the Fire of this VVood, contracts a Malignity, burning the Mouth and Throat: Further, whether the Natives uſe the Milky Juice of this Tree, and the Dew falling from it, and the Juice of its Fruit, in the Compoſition of the Poyſon they infect their Arrows with.

II. *Of Animals and Inſects.*

18. VVhether the Skin of the *Tatou*, and the little Bone of his Tail, do indeed, as is related, cure Deafneſs, and Pains of the Ears; and whether this Animal be Proof, not only againſt the Teeth of Dogs, but alſo againſt Bullets.

19. VVhe-

19. VVhether the Birds called *Canidei*, be so docile, that some of them learn not only to speak *Indian*, but also *Dutch* and *Spanish*, singing also the Airs in the Indian Tongue, as an *Indian* himself.

And whether the Bird *Colibri* have a Scent as sweet as the finest Amber and Musk; both which is affirmed by our French Author.

20. To procure some of the Fat of the Birds called *Fregati*, reputed to be very Antiparalytical and Antipodagrical.

21. To send over a Land-Pike, which is said to be like the VVater-Pike, but that instead of Fins it hath four Feet, on which it crawls.

22. VVhether the Skin of the Sea-wolf, which they otherwise call the *Requiem*, be so rude

rude and Stiff, that they make Files of them, fit to file VVood; and whether it be usually guided by another Fish, that is beautified with such a Variety of lively Colours, that one would say, That such Fishes are girt with Neck-Laces of Pearls, Corals, Emeralds, *&c.*

23. VVhether the Skins of the Sea-Calfs, otherwise called *Lamantins*, be so hard, when dryed, that they serve the *Indians* for Shields.

24. VVhether the Ashes of the Fresh-VVater Tortoises do hinder the falling off the Hair, being powdered therewith.

25. VVhether the Land-Crabs, of these Islands, do at certain Times hide themselves all under Ground, for six VVeeks, and during that Time

Change

Change and Renew themſelves; and whether in hiding themſelves thus, they do ſo carefully cover themſelves all about with Earth, that the opening thereof cannot be at all perceiv'd, thereby ſhutting out the Air, by which they might elſe be annoyed, when they are quite naked, after they have ſhed their Shells, there then remaining no other Cover on them, but a very thin and tender Skin, which, by little, thickeneth and hardneth into a Cruſt, lide the old. M.P. Luke

26. VVhether the Serpents in theſe Parts, that have Black and VVhite Spots on their Backs, be not Venomous; to ſend over ſome of ſuch Serpent's Skins.

27. To

27. To ſend over ſome of the Skins of thoſe huge Lizzards, called *Ovayamaca*, which, when come to their full Bigneſs, are ſaid to be five Foot long, Tail and all; and eſpecially that are ſaid to have the Scales of their Skins ſo Bright and Curious, that they reſemble Cloath of Gold and Silver.

28. VVhere the ſhining Flees, called *Cucuyes*, hide almoſt all their Light, when taken, but when at Liberty afford it plentifully.

29. VVhether there be a ſort of *Bees*, Brown and Blue, who make a Black VVax, but the Honey in it VVhiter and Sweeter than that of *Europe*.

30. VVhether in thoſe Parts the *Indians* do cure the Bitings of Serpents by eating freſh Citron-Pills, and by applying the

the Unguent, made of the bruised Head of the VVounding Serpent, and put hot upon the VVound.

31. VVhether the VVood-Lice in those Countries, generated out of Rotten VVood, are able, not only to eat through Trunks in a Day or two, and so spoil Linnen, Cloaths and Books (of which last they are said only to spare what is written or Printed) but also to support the Props, which Support the Cottages, that they fall; and whether the Remedy against the latter Mischief is, To turn the Ends of the Wood, that are fixed in the Ground, or to rub the VVood with the Oil of that kind of *Palma Christi* (a Plant) wherewith the Natives rub their Heads, to secure them from Vermin.

32. Whether that Sort of Vermine they meet with, commonly called *Rovets*, ſpare nothing of what they meet with, (either of Paper, Cloaths, Linnen and Woollen) but Silk and Cotten.

33. Whether the little Cirons called *Chiques*, bred out of Duſt, when they pierce once into the Feet and under the Nails of the Toes, do get ground of the whole Body, unleſs they be drawn out by times; and whether at firſt they cauſe but a little, but afterwards having pierced the Skin, raiſe a great Inflammation in the Part affected, and become in a ſmall Time as big as a Peaſe, producing innumerable Nits, that breed others.

Enquiries

Enquiries for Greenland.

1. What and how much is the Heat of the Sun there, in the midſt of *Summer*, compared with the Heat of it in *England*, to be obſerved with a Thermometer.

2. What is the moſt conſtant Weather there in *Summer*, whether Clear, Cloudy, Rainy, Foggy, *&c.*

3. What Weather is moſt uſual at ſuch and ſuch Times of the Year.

4. What Conſtancy or Unconſtancy there is of the Wind, to this or that Quarter of the Horizon, or to this or that Part of the Year.

5. What the Temperature e
each particular Wind is obser
ed to be, and particularly wh
ther the North-Wind be th
Coldeſt; if not, what Win
is, whether is Colder, the Ea
or the Weſt, &c.

6. What Wind is obſerve
to bring moſt Ice, and wha
to make a Clear Water i
Sea.

7. What Currents are there
how faſt and which Way the
ſet; whether theſe Current
are not ſtronger at one Time
of the the Moon, than of ano
ther; whether they always ru
one way.

8. What is obſervable abou
the Tides, High Spring or Neap;
How high the Water-Mark i
above the Low-Water; which
way it Floweth; which way
it Ebbeth; what Time of the
Moon

oon the Spring-Tides fall.

9. Whether the Ice that ats in the Sea, be of Salt Wa- or Freſh.

10. What Rivers there are the *Summer*, and what Freſh Waters can be had.

11. What Fowl are found o live there, and what Beaſts; ow they are thought to ſub- ſt in Winter; how they Breed d Feed their Young.

12. What Vegetables grow here, and whether they yield ny Flowers or Fruits, *&c.*

13. Whether there have een any Thunder or Light- ing obſerved in thoſe Parts s is obſerved in *Norway*.

14. How deep the Cold pe- etrates into the Earth, and

whether there be any Wells, Pits or Mines so deep that the Cold does not reach the Bottom thereof.

15. How the Land tends, and whether the Parts under or near the Pole, be by those that have gone furthest that way, thought to be Sea or Land; and how near any hath been known to approach the Pole; whether the Cold increaseth with the increase of Latitude.

16. To make, if possible, some Experiments and Observations about the Magnet or Needle; and particularly how much the Declination is there, and whether they exactly observe the Degrees of Declination in their Course; likewise to make Observations about

bout the Heighth of the Sun and other Celestial Bodies, and their Diameter, Refractions, &c.

17. What is their Opinion concerning the North East Passage.

18. What Fish do most frequent those Seas besides Whales; what is observable in their Fishing, as the usual or unusual Bigness and Strength, and the several Sorts of Whales, and particularly to observe, Whether that kind of Whale they call *Trompa*, have in their Heads the *Sperma Ceti*, and in their Entrals the Ambergreese, looking like Cows Dung. *Purchas.*

19. What observable Difference there is of the Coldness of the Wind, when it blows over great Boards of

Ice that are seen in these Seas, and when not.

20. To give an exact account of the VVhale-fishing, throwing the Harping Irons, following the Fish.

21. To describe the whole manner of making the Oil of VVhale.

The

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Advertisement.

IF any be desirous to have the Engines or Contrivances named in this Treatise, he may be furnish'd with them (upon due notice given) by Mr. *Papin*, who is very ingenious both in Contriving and Making any Thing relating to Air-Pumps, New Digestors; in a Word, any thing relating to Hydrostaticks or Hydraulicks, for which he was always employ'd by the Honourable Mr. *Robert Boyle*. He may be spoke with at the Place mentioned, page 5, 18. or rather at Mr. *Blakies*, a Black Smith, in the Court over-against the *Crown* and *Thistle* in *Black-Fryars*.

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